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<110> Japan Tobacco, Inc.

Honjo, Tasuku

<120> Novel Cytidine Deaminase

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⟨151⟩ 1999-03-29

<150> JP11-178999

<151> 1999-06-24

<150> JP11-371382

<151> 1999-12-27

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<170> PatentIn Ver. 2.1

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Met Asp Ser Leu Leu Met Lys

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caa aag aag ttt ctt tac cat ttc aaa aat gtc cgc tgg gcc aag gga 161
Gln Lys Lys Phe Leu Tyr His Phe Lys Asn Val Arg Trp Ala Lys Gly

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Arg	His	Glu	Thr	Tyr	Leu	Cys	Tyr	Val	Val	Lys	Arg	Arg	Asp	Ser	Ala	
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His	Val	Glu	Leu	Leu	Phe	Leu	Arg	Tyr	Ile	Ser	Asp	Trp	Asp	Leu	Asp	
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tat	gac	tġt	gcc	cgg	cac	gtg	gct	gag	ttt	ctg	aga	tgg	aac	cct	aac	401
		Cys														
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ctc	agc	ctg	agg	at.t.	ttc	acc	āCā	ርጀር	ctc	tari	tto	t o t	σa a	gar	rar	449
	0-	0	-00	_, _, _,	200		9.0	~8~		540		0 g U	544	540	υ δυ	113

aag gct gag cct gag ggg ctg cgg aga ctg cac cgc gct ggg gtc cag 497

115

Leu Ser Leu Arg Ile Phe Thr Ala Arg Leu Tyr Phe Cys Glu Asp Arg

110

Lys Ala Glu Pro Glu Gly Leu Arg Arg Leu His Arg Ala Gly Val Gln
120 125 130 135

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Ile Gly Ile Met Thr Phe Lys Asp Tyr Phe Tyr Cys Trp Asn Thr Phe

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aat tot gto ogg ota acc aga caa ott ogg ogo atc ott ttg occ ttg 641 Asn Ser Val Arg Leu Thr Arg Gln Leu Arg Arg Ile Leu Leu Pro Leu 170 175 180

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Tyr Glu Val Asp Asp Leu Arg Asp Ala Phe Arg Met Leu Gly Phe

185 190 195

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Phe Tyr Cys Trp Asn Thr Phe Val Glu Asn Arg Glu Arg Thr Phe Lys

145

150

155

160

Ala Trp Glu Gly Leu His Glu Asn Ser Val Arg Leu Thr Arg Gln Leu

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175

Arg Arg Ile Leu Leu Pro Leu Tyr Glu Val Asp Asp Leu Arg Asp Ala

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Leu Tyr Gln Phe Lys Asn Val Arg Trp Ala Lys Gly Arg Arg Glu Thr
15 20 25

tac ctg tgc tac gta gtg aag agg cgt gac agt gct aca tcc ttt tca 208

Tyr Leu Cys Tyr Val Val Lys Arg Arg Asp Ser Ala Thr Ser Phe Ser

30 35 40

ctg gac ttt ggt tat ctt cgc aat aag aac ggc tgc cac gtg gaa ttg 256
Leu Asp Phe Gly Tyr Leu Arg Asn Lys Asn Gly Cys His Val Glu Leu
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ctc ttc ctc cgc tac atc tcg gac tgg gac cta gac cct ggc cgc tgc 304

Leu Phe Leu Arg Tyr Ile Ser Asp Trp Asp Leu Asp Pro Gly Arg Cys
60 65 70 75

tac ege gte ace tgg tte ace tee tgg age eee tge tac gae tgt gee 352

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Leu Ser Arg Gln Leu Arg Arg Ile Leu Leu Pro Leu Tyr Glu Val Asp

185

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190 195

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Val Lys Arg Arg Asp Ser Ala Thr Ser Phe Ser Leu Asp Phe Gly Tyr
35 40 45

Leu Arg Asn Lys Asn Gly Cys His Val Glu Leu Leu Phe Leu Arg Tyr
50 55 60

Ile Ser Asp Trp Asp Leu Asp Pro Gly Arg Cys Tyr Arg Val Thr Trp

65 70 75 80

Phe Thr Ser Trp Ser Pro Cys Tyr Asp Cys Ala Arg His Val Ala Asp

85 90 95

Phe Leu Arg Gly Asn Pro Asn Leu Ser Leu Arg Ile Phe Thr Ala Arg

100 105 110

Leu Tyr Phe Cys Glu Asp Arg Lys Ala Glu Pro Glu Gly Leu Arg Arg

115 120 125

Leu His Arg Ala Gly Val Gln Ile Ala Ile Met Thr Phe Lys Asp Tyr
130 135 140

Phe Tyr Cys Trp Asn Thr Phe Val Glu Asn His Glu Arg Thr Phe Lys

145 150 155 160

Ala Trp Glu Gly Leu His Glu Asn Ser Val Arg Leu Ser Arg Gln Leu

165

170

175

Arg Arg Ile Leu Leu Pro Leu Tyr Glu Val Asp Asp Leu Arg Asp Ala

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Phe Arg Thr Leu Gly Leu

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<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
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<211> 27
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<213> Artificial Sequence
<220>
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tcacgtgtga cattccagga ggttgct
<210> 18
<211> 30
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25

27

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gtagtaaga ggcgtgacag tgctacatcc
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<211> 27
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<210> 20
<211> 24
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30

<400> 20

<400> 22

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gagttt gagg tacaagttgg acac
<210> 21
⟨211⟩ 23
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<213> Artificial Sequence
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<223> Description of Artificial Sequence: Artificially
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<400> 21
tateteetet etectaacae get
<210> 22
⟨211⟩ 23
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24 23

22

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achagetgat aatattetee cat
<210>\23
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<210> 24
<211> 30
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<213> Artificial Sequence
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<400> 24

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30 28

<400> 26

<400> 28

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tagaccctgg ccgctgctac c
⟨210⟩ 27
⟨211⟩ 22
<212> DNA
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⟨223⟩ Descript on of Artificial Sequence: Artificially
      synthesized primer sequence, p19
<400> 27
cgcatcgcaa tcccgaatgc gg
<210> 28
⟨211⟩ 28
<212> DNA
<213> Artificial Sequence
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21

22

<400> 30

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caaaaggatg cgccgaagct gtctggag
<210> 29
<211> 23
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      synthesized primer sequence, p29
<400> 29
gttggaagaa agtaaattgg/gaa
<210> 30
<211> 21
<212> DNA
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Artificially
      synthesized primer sequence, p36
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28

23

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                                                                            21
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        ⟨211⟩ 26
         <212> DNA
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         <220>
<223> Description of Artificial Sequence: Artificially
               synthesized primer sequence, p48
         <400> 31
        cattaattga agtgagattt ttctgg
                                                                            26
         ⟨210⟩ 32
         K211> 22
        <212> DNA
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         <220>
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- (a)

<400> 32

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<210> 33
<211> 24
<212> DNA
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Artificially
      synthesized primer sequence, p85
<400> 33
aactttattt ctcctccaca tca&
<210> 34
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Artificially
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24

. . .

<400> 34

gtgaatggct cagagacaag g

21

⟨210⟩ 35

⟨211⟩ 11204

<212> DNA

<213> Homo sapien's

<400> 35

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